

EAST - [Default EAST Workspace 1600x1200.wsp:1] Close

File View Edit Tools Window Help

Drafts  
 BRS: compar\$3 same differen\$4 same threshold\$3  
 BRS:  
 Pending  
 Active  
 L1: (35) (determin\$3 or estimat\$3) same current\$3 and furture\$3  
 L2: (4333) transcod\$3  
 L3: (0) 1 and 2  
 L4: (45987) (determin\$3 or estimat\$3) same current\$3 and future\$3  
 L5: (479) 2 and 4  
 L6: (6549) (determin\$3 or estimat\$3) same current\$3 same future\$3  
 L7: (8) 2 same 6  
 L8: (7076) (determin\$3 or identif\$5) same current\$3 same future\$3  
 L9: (7) 2 same 8  
 L10: (3851) (re adj (encod\$3 or compress\$3))  
 L11: (2) 8 same 10  
 L12: (7) (determin\$3 or identif\$5) same current\$3 same future\$3 same transcod\$5

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 DBs USPAT, US-PGPUB, EPO, JPO, DENV, Plurals  
 Default operator: OR  Highlight all hit terms initially

	<b>U</b>	<b>I</b>	<b>Document I</b>	<b>Issue Da</b>	<b>Page</b>	<b>Title</b>	<b>Current O</b>	<b>Current XR</b>	<b>Retrieval</b>	<b>Inventor</b>	<b>S</b>	<b>C</b>	<b>P</b>	<b>2</b>	<b>3</b>	<b>I</b>
1	<input type="checkbox"/>	<input type="checkbox"/>	US	20040115	20	System, method, and	709/231			Mukherjee, Debargha	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US	20030821	36	System, method, and	709/219	709/224;		Agnoli, Giovanni M. et	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
3	<input type="checkbox"/>	<input type="checkbox"/>	US	20020627	7	Method and system for	375/240.06	375/240.12;		Lu, Ligang et al.	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
4	<input type="checkbox"/>	<input type="checkbox"/>	US	20010524	17	Transcoding of a data	375/242	375/245		Bailleul, Nicolas	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
5	<input type="checkbox"/>	<input type="checkbox"/>	US	20010405	17	Transcoding of a data	370/527	370/529		Bailleul, Nicolas	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6477211	20021105	15	Transcoding of a data	375/342	375/245;		Bailleul, Nicolas	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
7	<input type="checkbox"/>	<input type="checkbox"/>	US 6201844	20010313	17	Transcoding of a data	375/372	375/377		Bailleul, Nicolas	<input checked="" type="checkbox"/>	<input type="checkbox"/>				

Ready. NUM

US-PAT-NO:

5724593

DOCUMENT-IDENTIFIER: US 5724593 A

TITLE: Machine assisted transl

----- KWIC -----

## Brief Summary Text - BSTX (22):

Another aspect of the present invention involves a translation memory. A weighted letter n-gram

provided. An aligned file comprising a plural strings, each source language text string pair

[Details](#) [Text](#) [Image](#) [HTML](#) [KWC](#)

Document	I	Kind	Code	Source	Issue	D	Pages
13	US	2001000		US-PGP	2001062	28	
14	US	6704694		USPAT	2004030	33	
15	US	6523026		USPAT	2003021	48	
16	US	6484168		USPAT	2002111	7	
17	US	6430539		USPAT	2002080	34	
18	US	6411930		USPAT	2002062	13	
19	US	6348924		USPAT	2002021	18	
20	US	6314349		USPAT	2001110	23	
21	US	6313423		USPAT	2001110	16	
22	US	6304677		USPAT	2001101	38	
23	US	6263507		USPAT	2001071	35	
24	US	6208355		USPAT	2001032	34	
25	US	6167156		USPAT	2000122	26	
26	US	6131082		USPAT	2000101	18	
27	US	6067094		USPAT	2000052	33	
28	US	6044339		USPAT	2000032	10	
29	US	6026397		USPAT	2000021	43	
30	US	5724593		USPAT	1998030	16	

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## United States Patent [19]

Hargrave, III et al.

[11] Patent Number: 5,724,593

[45] Date of Patent: Mar. 3, 1998

## [54] MACHINE ASSISTED TRANSLATION TOOLS

## OTHER PUBLICATIONS

[75] Inventor: James E. Hargrave, III, Longmont; Yves I. Bevelacqua, Boulder, both of Colo.

W.B. Paix, "Introduction to Information Storage and Retrieval Systems," Ch. 1, pp. 1-12.  
Ricardo A. Riesco-Yáñez, "Introduction to Data Structures and Algorithms Related to Information Retrieval," Ch. 2, pp. 13-37.

[73] Assignee: International Language Engineering Corp., Boulder, Colo.

Diana Hermes et al., "Inverted Files," Ch. 5, pp. 28-43.  
Marc Demetsky, "Ganging Similarity with n-Gram Language-Independent Categorization of Text," Feb. 10, 1995, Schenectady, pp. 843-845.  
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Anonymous, "Index Translator's Workbench for Windows," two page write, 1994.

[21] Appl. No. 789,614

[22] Filed: Jan. 24, 1997

## Related U.S. Application Data

[63] Continuation of Ser. No. 444,981, Jun. 7, 1995, abandoned.

[51] Int. Cl. 6 G06F 17/28

[52] U.S. Cl. 395/737; 395/605

[53] Field of Search 395/757; 759, 395/760, 753, 794, 805, 2,49, 2,52, 2,64; 382/213, 259, 230

## U.S. PATENT DOCUMENTS

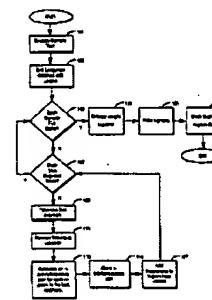
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Primary Examiner—Jeffrey Haines  
Assistant Examiner—Andrew Hill  
Attorney, Agent or Firm—Dox, Cuccia, Sloane & Birocy, P.C.

## [57] ABSTRACT

A translation memory for computer assisted translation based upon an aligned file having a number of source language text strings paired with target language text strings. A portion vector is formed from a portion vector of each of such source language text strings in the aligned file. Each portion vector includes a document identification number corresponding to a selected one of the source language text strings in the aligned file and a number of entry weight values, each of the number of weight values corresponding to a unique letter n-gram that appears in the selected source language text string. Preferably, the translation memory further includes an inverted index comprising a list of source language letter n-grams and a pointer to each of the portion vectors including an entry for the listed letter n-gram.

18 Claims, 7 Drawing Sheets



[Details](#) [Text](#) [Image](#) [HTML](#) Full

AST - [templot.wsp:]

File View Edit Tools Window Help

Pending Active

- ✓ L1: (24) (re-encod\$3 or (re adj encod\$3) or recompress\$3) same (motion with estimat\$3)
- ✓ L2: (54) transcod\$3 same (motion with estimat\$3)
- ✓ L3: (1489) (encod\$3 or compress\$3) same (decod\$3 or decompress\$3) same (motion with estimat\$3)
- ✓ L4: (114) transcod\$3 same estimat\$3
- ✓ L5: (45) 3 and 4
- ✓ L6: (6959) (re-encod\$3 or (re adj encod\$3) or recompress\$3)
- ✓ L7: (3153) transcod\$3
- ✓ L8: (210) 6 and 7
- ✓ L9: (39) 8 and 3
- ✓ L10: (24) 5 and 9

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DBs USPAT; US-PGPUB; EPO; JPO; DERWENT  Blends  
Default operator: OR  Highlight all hit terms initially

BRS form ISAR form Image Text HTML

U	1	Docum	Issue Pa	Title	Curre	Curren	Retri	Inventor	S	C	P	2	3	Image	Doc.	P
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EAST - [templat.wsp:1] File View Edit Tools Window Help

Pending

- Active
  - L1: (238) (re adj (compress\$3 or encod\$3)) same estimat\$3
  - L2: (116) transcod\$3 same estimat\$3
  - L3: (222) 1 and "3"
  - L4: (16) 1 and 2**
  - L5: (8887) (compress\$3 or encod\$3) with estimat\$3
  - L6: (299) (compressed or encoded) with input with estimat\$3
  - L7: (1) 2 and 6
  - L8: (3045) (re adj (compress\$3 or encod\$3))
  - L9: (607) ((compressed or encoded) with input ) same estimat\$3
  - L10: (44) 8 and 9
  - L11: (7) 2 and 9
  - L13: (0) 2 and 12
  - L12: (15) (total with bits) same (average with quantiz\$3)
  - L14: (18613) total with bits
  - L15: (1115) (average with quantiz\$3)
  - L16: (11) 14 and 15 and 8
  - L17: (160) (re adj (compress\$3 or encod\$3)) with estimat\$3
  - L18: (62796) 375/\$6
  - L19: (67215) 348/\$6
  - L20: (86) 17 and 18
  - L21: (28) 17 and 19
- Failed
  - (0) (compressed or encoded) with input) with estimat\$3
- Saved
  - (13627) (match\$5 or compar\$5) same templat\$5

Search List Browse Queue Clear  
 DBs USPAT USPTO PUB EPO JPO DERWENT  
 Default operator: OR  Plurals  
 Highlight all hit terms initially

1 and 2

	U	I	Docum	Issue	Pa	Title	Curre	Curren	Retri	Inventor	S	C	P	③	Image	Doc.	P
1	<input type="checkbox"/>	<input type="checkbox"/>	US_200	20030122	Transcodina.mul	709/23	709/20			Chou.. Jim. et	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US_20030018	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	US_200	20030116	Non-compensate	375/24	375/24			Moni ..Shanka	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US_20030002	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	US_200	20021127	Method and app	725/11	725/11			Kuhn ..Peter	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	US_20020157	<input type="checkbox"/>
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